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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/712,670	11/13/2003	Yong Cho	EL0519 US NA	2597
23906 7590 01/08/2008 E I DU PONT DE NEMOURS AND COMPANY LEGAL PATENT RECORDS CENTER BARLEY MILL PLAZA 25/1122B 4417 LANCASTER PIKE WILMINGTON, DE 19805			EXAMINER ANTHONY, JOSEPH DAVID	
			ART UNIT 1796	PAPER NUMBER
			NOTIFICATION DATE 01/08/2008	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PTO-Legal.PRC@usa.dupont.com

<b>Office Action Summary</b>	Application No. 10/712,670	Applicant(s) CHO ET AL.	
	Examiner. Joseph D. Anthony	Art Unit 1796	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11/07/07 as an amendment with the RCE.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 10-17 is/are pending in the application.
- 4a) Of the above claim(s) 10-14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 15-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION AFTER FILING OF RCE

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35

U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 15, and 17 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Watanabe et al. U.S. Patent Application Publication No.: 2002/0017864 A1.

Watanabe et al. teach a method of manufacturing a plasma display panel, which comprises the steps of filling a barrier rib-forming paste containing glass frit in a barrier ribs-forming intaglio and concurrently forming a paste layer having a constant thickness on the intaglio, superimposing a substrate on the barrier ribs-forming intaglio filled with the barrier rib-forming paste containing glass frit to thereby transfer the barrier rib-forming paste onto the substrate, and heating the barrier rib-forming paste that has been transferred to the substrate, thereby burning out existing organic components and concurrently sintering the glass frit to thereby form the barrier ribs and dielectric layer. The plasma display panel manufactured by this method is featured in that the barrier ribs and the dielectric layer are formed using the same barrier rib-forming material containing a low melting point glass frit, see abstract. The method comprise in part making a composition comprising glass powder/frits, an organic binder, an organic solvent and optionally an inorganic white pigment, see sections [0212]-[0213].

Applicant's claims are deemed to be directly anticipated over the mixtures set forth in sections [0261] and [0269], which comprise a low melting point glass power at 60 parts by weight, an ethyl cellulose binder at 15 parts by weight and a butylcarbitol acetate solvent at 25 parts by weight.

4. Claim 16 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Watanabe et al. U.S. Patent Application Publication No.: 2002/0017864 A1.

Watanabe et al. has been described above and is deemed to anticipate applicant's claimed invention since compositions that fall within applicant's claimed glass frits concentration range would have been at once envisaged by Watanabe et al.'s disclosure taken as a whole. In the alternative, Watanabe et al. can be said to differ from applicant's claimed invention in that there is not a direct teaching (i.e. by way of a specific example) to a composition that actually comprises the glass powder/frits at a concentration that falls within applicant's claimed concentration ranges of 5-55 weight percent. It would have been obvious to one having ordinary skill in the art to use the broad disclosure of the reference as strong motivation to make a composition that actually comprises the glass powder/frits at a concentration that falls within applicant's claimed concentration ranges of 5-55 weight percent. Applicant's attention is drawn to Watanabe et al's example 9 wherein glass frits are used at a concentration of 10 parts by weight of the composition which is well within applicant's glass powder/frits claimed concentration range. In any case, Watanabe et al's specifically disclosed

compositions, as set forth in sections [0261] and [0269], were given by way of illustration and not by way of limitation. Finally, applicant has set forth no showing of any unexpected and superior results that may arise from making a composition that has the concentration of the glass power/frits that fall within applicant's claimed concentration range as compared to a composition wherein the concentration of the glass power/frits falls outside of applicant's claimed concentration range.

5. Claims 1 and 17 are rejected under 35 U.S.C. 102(e) as being anticipated by Kato et al. U.S. Patent Number 7,214,429.

Kato et al. teach a sealing material for sealing an envelope of an electron tube. The sealing material comprises 0.01 to about 2.0 wt % of fine particle selected from the group consisting of  $\text{SiO}_2$ ,  $\text{Al}_2\text{O}_3$  and  $\text{ZrO}_2$  having a particle diameter of 0.001 to about 0.1  $\mu\text{m}$ ,  $\text{P}_2\text{O}_5$ -SnO type low melting glass and thermal expansion-controlling low melting ceramics, see abstract. Applicant's claims are deemed to be anticipated over example 1, see especially column 6, lines 14-20 and column 7, lines 28-35.

6. Claims 15-16 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Kato et al. U.S. Patent Number 7,214,429.

Kato et al. has been described above and is deemed to anticipate applicant's claimed invention. In the alternative, Kato et al. may differ from applicant's claimed invention in that it is unclear if there is a direct teaching (i.e. by way of said example 1)

to a composition that actually comprises the organic medium and glass powder/frits at concentrations that falls within applicant's claimed concentration ranges. It would have been obvious to one having ordinary skill in the art to use the broad disclosure of the reference as strong motivation to make a composition that actually comprise the organic medium and the glass powder/frits at concentrations that falls within applicant's claimed concentration ranges. In any case, Kato et al's specifically disclosed compositions, as set forth in example 1, were given by way of illustration and not by way of limitation. Finally, applicant has set forth no showing of any unexpected and superior results that may arise from making a composition that has the concentration of the glass power/frits that fall within applicant's claimed concentration range as compared to a composition wherein the concentration of the glass power/frits falls outside of applicant's claimed concentration range.

### ***Response to Arguments***

7. Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection. Please note that the Examiner has dropped the previously applied prior-art references over claim 1 in light of applicant's amendment to independent claim 1, in the amendment filed 11/07/07 with the RCE, wherein the preamble claim language was changed from "comprising" to "consisting of". This amendment is deemed to have excluded the additional inorganic components which were required by the dropped prior-art references. The Examiner did not drop the previous applied prior-art rejections in light of any of applicant's arguments as set

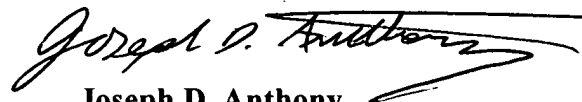
forth in the "Remarks" section of the amendment filed 11/07/07 that were not directly related to the change in the claims preamble claim language from "comprising" to – consisting of--.

***Prior-Art Cited But Not Applied***

8. Any prior-art reference which is cited on FORM PTO-892 but not applied, is cited only to show the general state of the prior-art at the time of applicant's invention.

***Examiner Information***

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Joseph D. Anthony whose telephone number is (571) 272-1117. If attempts to reach the examiner are unsuccessful, the examiner's supervisor, Harold Pyon, can be reached on (571) 272-1498. The centralized FAX machine number is (571) 273-8300. All other papers received by FAX will be treated as Official communications and cannot be immediately handled by the Examiner.



Joseph D. Anthony  
Primary Patent Examiner  
Art Unit 1796

1/1/08